

Application No. 09/778,371

### REMARKS

Claims 1-7 and 9-20 are pending. Claims 1-7 and 9-20 stand rejected under 35 USC § 112, second paragraph. Claims 1-4, 7, 9, 10, 12-14, and 17 stand rejected under one of 35 USC § 102(b) or (e). Claim 5 stands rejected under 35 USC § 103. The Drawings are objected to.

#### Objection to the Drawings

The Drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because reference number 38 is said not to have been mentioned in the Specification.

The Applicants respectfully direct the Examiner to page 5, line 2 of the Specification which clearly describes reference number 38 of Figure 1 as a second waist region. The Applicants respectfully submit that this showing overcomes the objection and request that it be withdrawn.

#### Claim Rejections

##### Rejections under 35 USC § 112, Second Paragraph

##### Rejection of Claims 1-7 and 9-20

Claims 1-7 and 9-20 stand rejected under 35 USC § 112, second paragraph as being indefinite. The Office Action asserts:

- The language regarding a thermal cell actuator changing a mechanical property of a different component in Claims 1-3 and 17 is considered vague and indefinite.
- There is insufficient antecedent basis for the terms "action of the caregiver" and "the activation" in Claim 6.

The Applicants will address each of these issues in turn.

##### Rejection of Claims 1-3 and 17

Claims 1-3 and 17 stand rejected because the language regarding changing a thermal cell actuator changing a mechanical property of a different component in Claims 1-3 and 17 is considered vague and indefinite. The Office Action further states that it is unclear what the Applicants mean in reciting a different component.

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The Applicants have amended Claims 1-3 and 17 to clarify that the phrase "different component of the article" is intended to mean a component of the article other than the thermal cell actuator. Support for this amendment can be found in Claims 1-3 and 17 as filed which clearly indicate that the claimed absorbent article is comprised of both the thermal cell actuator and components other than the thermal cell actuator and in the general knowledge at the time of the invention that an absorbent article is comprised of more than one component. Given that the Applicants' amendment to Claims 1-3 and 17 clarifying that the phrase "different component of the article" is intended to mean a component of the article other than the thermal cell actuator moots the rejection under 35 USC § 112, second paragraph, they request that the Examiner reconsider and withdraw the rejection thereof. Given that Claims 4-7 and 9-20 depend from Claim 1, having all the limitations of the base claim, the Applicants further submit that the rejection under 35 USC § 112, second paragraph with respect to these dependent claims has also been overcome and respectfully request the withdrawal thereof.

#### Rejection of Claim 6

Claim 6 stands rejected as having insufficient antecedent basis for the terms "action of the caregiver" and "the activation". Claim 6 has been amended to replace the phrase "the caregiver" with the phrase "a caregiver". Support for this amendment can be found in Claim 6 as originally filed. Claim 6 has also been amended to replace the term "activation" with the term "actuation" to provide the necessary antecedent basis in Claim 1. Support for this amendment can be found in Claim 1 as originally filed. Given that the amendment provides the necessary antecedent basis, the Applicants respectfully request that the Examiner reconsider and withdraw the rejection of Claim 6 under 35 USC § 112, second paragraph.

#### Rejections Under 35 USC § 102

##### Rejection Over Glaug (US 5,797,892)

Claims 1-4, 7, 9, 10, 12-14, and 17 stand rejected under 35 USC § 102(b) as being anticipated by Glaug, et al. (US 5,797,892). The rejections with respect to specific claims, are listed below.

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- **Claim 1:** The Office Action asserts that the Glaug reference discloses an absorbent article comprising a backsheet (said to be element 58), a liquid pervious topsheet joined to the backsheet (said to be element 60), an absorbent core disposed between the topsheet (said to be element 82 in Figure 6) and a thermal cell actuator (said to be element 54). The Office Action further asserts that Glaug's temperature change member 58 adds or removes heat from Glaug's absorbent article so as to perform a useful function from among those set forth in col. 8, line 51 to col. 9, line 16 of the reference. Specifically, the Office Action asserts that the temperature change removes heat from at least a portion of the absorbent article on actuation so as to maintain the article at a predefined temperature of between 2.8 and 13.8°C.
- **Claim 2:** The Office Action asserts that the Glaug reference discloses an absorbent article comprising a backsheet (said to be element 58), a liquid pervious topsheet joined to the backsheet (said to be element 60), an absorbent core disposed between the topsheet (said to be element 82 in Figure 6) and a thermal cell actuator (said to be element 54) that adds or removes heat from Glaug's absorbent article so as to perform a useful function on the article or wearer (support said to be at col. 8, lines 51-57). The Office Action goes on to assert that the Glaug reference further discloses a triggering mechanism whereby a non-urine based signal within the article causes the thermal cell actuator to add or remove heat from at least a portion of the absorbent article (support said to be at col. 9, lines 61-63).
- **Claim 3:** While repeating the same assertions that the Glaug reference discloses a backsheet, a topsheet, a core and a thermal cell actuator used in the rejection of Claims 1 and 2, the Office Action admits that the Glaug reference fails to disclose an electrically powered thermal cell actuator. However, the Office Action goes on to assert that the claim is a product by process claim and that the claim is unpatentable because Glaug discloses a prior product made by a different process.
- **Claim 4:** The Office Action asserts that the Glaug reference discloses an absorbent article that performs a function between the backsheet of the article and the skin of a wearer in response to a change in relative humidity, moisture or temperature (col. 8, lines 51-57 is used as support).

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- **Claim 7:** The Office Action asserts that the Glaug reference discloses an absorbent article where a thermal cell actuator controls humidity or temperature (col. 8, lines 51-57 is used as support).
- **Claims 9 and 10:** The Office Action directs the Applicants to col. 9, lines 45-52.
- **Claim 12:** The Office Action asserts that the Glaug reference discloses, at col. 9, lines 3-5, an absorbent article that provides a constant temperature during use of about 15-25 °C. The Office Action contends that room temperature is considered to be 24 °C. The Office Action then contends that the change in temperature provided by Glaug's temperature change member, said to be between 2.8 and 13.8°C, will result in a temperature equivalent to the claimed temperature.
- **Claim 13:** The Office action asserts that the Glaug reference, in Figure 6, discloses a thermal cell actuator that is not in contact with a wearer's skin.
- **Claim 14:** The Glaug reference is said to disclose, at col. 16, lines 42-48, a thermal cell actuator in vapor communication with a wearer's skin such that vapor can condense inside the article.
- **Claim 17:** The disclosure at Col. 15, lines 20-39 of the Glaug reference is asserted to teach a thermal cell actuator that changes a mechanical property of a different component of the article because Glaug's temperature change member allows passage of fluids which then result in a mechanical property change of in Glaug's dimensional change member 82.

The Applicants will respond to each rejection in turn.

The Applicants respectfully traverse the rejection of Claim 1 and submit that the Glaug reference fails to teach maintaining the article at a predefined temperature as asserted by the Office Action. Rather the portion of the Glaug reference cited by the Office Action teaches that Glaug's temperature change member 54 results in a change in temperature of between 2.8 and 13.8°C. The following quotes col. 9, lines 3-5 of the Glaug reference.

Specifically, the training aid 22 desirably provides a surface temperature **change** (emphasis added) when wet of from about 5 to about 25 degrees Fahrenheit (°F) (2.8°-13.8°C).

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The Glaug reference fails to anticipate Claim 1 because it fails to teach a predetermined temperature as is claimed. Rather, it teaches a range of temperature changes. Nowhere does this equate to maintaining the article at a temperature of 2.8°-13.8°C as asserted by the Office Action. The Applicants note the rejection of Claim 12 where the Office Action clearly recognizes that Glaug teaches a change in temperature and uses the same temperature range, in combination with an assumed value for ambient temperature, to assert that the Glaug reference teaches maintenance of a predetermined temperature in the range claimed therein. This attempt also fails because the assumption of a base temperature is arbitrary. The Applicants submit that the actual starting temperature would be somewhere between normal body temperature and the ambient temperature (whatever that may be). This uncertainty in starting temperature and the fact that the Glaug reference only discloses a range of temperature changes means there can be no disclosure of an thermal cell actuator that maintains the article at a predetermined temperature upon activation. Given that the Glaug reference fails to disclose all of the elements of Claim 1, the Applicants respectfully request reconsideration and withdrawal of the rejection under 35 USC § 102 over that reference.

Regarding Claim 2, the Applicants respectfully direct the Examiner to the amendment thereto. The Applicants have amended the claim to more clearly describe the non-urine based signal that causes the triggering mechanism to activate the thermal cell actuator as being a force or sensor based signal. Support for this amendment comes from page 17, lines 10-28. The Applicants note the rejection of Claim 17 where the Office Action asserts that fluid passing through Glaug's temperature change member is said to result in a mechanical property change to the dimensional change member. The Applicants point out that a change to Glaug's dimensional change member 82 does not provide a signal that causes Glaug's temperature change member 54 to add or remove heat as described in Claim 2 as amended and, therefore the disclosure of a dimensional change member in combination with a thermal change member fails to anticipate the amended claim. Given that the Applicants have shown that Claim 2 as amended is not anticipated by the Glaug reference, they respectfully request reconsideration of the rejection, its withdrawal and allowance of the claim.

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With regard to the rejection of Claim 3, the Office Action relies on the assertion that Claim 3 is a product by process claim and that the Glaug reference discloses the same product made by a different process. The Applicants respectfully traverse the rejection and direct the Examiner to MPEP § 2173.05 (p) which states:

A product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made,....

The Applicants respectfully point out that the claimed article where the thermal cell actuator is electrically powered does not claim the article in terms of the process by which it was made. Rather, Claim 3 is directed to an article where the thermal cell actuator is electrically powered. The Office Action appears to confuse the result of actuating the thermal cell actuator with the component of the article called a thermal cell actuator. Clearly, there is no disclosure in the Glaug of an electrically powered thermal cell actuator so there can be no anticipation of Claim 3. Therefore, the Applicants respectfully request that the rejection of Claim 3 as being anticipated by the Glaug reference be reconsidered and withdrawn and that Claim 3 be allowed.

Regarding Claims 4, 7 and 9, the Applicants point out that these claims depend from Claim 1, having all the limitations of the base claim. The Applicants further point out that they have shown above how the Glaug reference fails to anticipate Claim 1 as amended. Therefore, the Applicants respectfully request reconsideration of the rejection of Claims 4, 7 and 9 under 35 USC § 102 (b) and withdrawal thereof.

With respect to the rejection of Claim 12, the Applicants again point out that the Office Action relies on the change in temperature 2.8°-13.8°C that the Glaug reference teaches in combination with an asserted value for ambient temperature of 24°C to assert that the Glaug reference teaches maintenance of a predetermined temperature in the range of 15 °C to 25°C. This attempt fails because the assumption of a base temperature of 24°C is arbitrary. The Applicants submit that the actual starting temperature would be somewhere between normal body temperature (37°C) and the ambient temperature (whatever that may be). This uncertainty in starting temperature and the fact that the Glaug reference only discloses a range of temperature changes means there can be no disclosure of a thermal cell actuator that maintains the article at a predetermined temperature of

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between 15°C and 25°C upon activation. Therefore, the Applicants respectfully request the reconsideration and withdrawal of the rejection of Claim 12.

Regarding Claims 13 and 14, both claims depend from Claims 1 and 12, having all the limitations of both the parent and the grandparent. Given that the Applicants have shown above that both Claims 1 and 12 are independently novel over the Glaug reference, the Applicants respectfully request that the rejection of Claims 13 and 14 be withdrawn.

With respect to the rejection of Claim 17, the Applicants again point out that the Office Action asserts that fluid passing through Glaug's temperature change member 54 is said to result in a mechanical property change to the dimensional change member 82. The Applicants respectfully direct the Examiner to the plain language of Claim 17 as amended which states:

The absorbent article of claim 1 wherein the **thermal cell actuator changes** (emphasis added) a mechanical property of a component of the article other than the thermal cell actuator.

The Applicants respectfully submit that it is fluid contacting is Glaug's dimensional change member 82 what is changing a dimension thereof **not** the temperature change member 54 as asserted by the Office Action. The Applicants respectfully remind the Examiner that, as described in Claim 1 from which Claim 17 depends, it is the addition or removal of heat by the thermal cell actuator that causes the change in a mechanical property. Given that the Applicants have shown that Claim 17 as amended is not anticipated by the Glaug reference, they respectfully request reconsideration of the rejection, its withdrawal and allowance of the claim.

Rejection Over M<sup>c</sup>Coy (US 5,167,655)

Claims 1 is rejected under 35 USC § 102 (e) as being anticipated by M<sup>c</sup>Coy (US 5,167,655). The Office Action asserts that the M<sup>c</sup>Coy reference discloses an absorbent article comprising a backsheet (said to be element 12), a liquid pervious topsheet (said to be element 10) joined to the backsheet (said to be shown in Figure 3), an absorbent core disposed between the topsheet (said to be element 22 in Figure 3) and a thermal cell actuator (said to be element 18) which is said to add or remove heat from at least a portion of the absorbent article so as to result in a useful function selected from the group set forth

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in col. 1, lines 30-32. In particular, the Office Action asserts that M<sup>c</sup>Coy's cold therapy pack will remove heat from at least a portion of the absorbent article so as to result in maintaining the article at a predetermined temperature (said to be a temperature lower than room temperature).

In response the Applicants respectfully direct the Examiner to Claim 1 as amended and submit that the M<sup>c</sup>Coy reference fails to disclose all of the elements of the claim. Specifically, the Applicants submit that the M<sup>c</sup>Coy reference fails to disclose an impermeable backsheet. The Applicants direct the Examiner to col. 2, line 30 which only describes M<sup>c</sup>Coy's element 12 as the outer side of the panty 2. The Applicants further direct the Examiner to col. 3, line 67-col. 4, line 1 which describes the panty 2 as preferably being made from an absorbent paper product or the like and to col. 4, lines 13-15 which describe a washable alternative embodiment. Next, the M<sup>c</sup>Coy reference fails to disclose an impermeable backsheet as described in Claim 1 as amended. Given that, in order to anticipate a reference must disclose all of the limitations of a claim and given that the M<sup>c</sup>Coy reference fails to disclose an impermeable backsheet, the Applicants respectfully suggest that the M<sup>c</sup>Coy reference fails to anticipate Claim 1 as amended and request reconsideration and withdrawal of the rejection.

Rejections Under 35 USC § 103

Claim 5 stands rejected under 35 USC § 103 as being unpatentable over M<sup>c</sup>Coy (US 5,167,655) and further in view of Cheney, III, et al. (US 5,534,020). While admitting that the M<sup>c</sup>Coy reference fails to teach or disclose a thermal cell actuator that performs a useful function in response to a normal force by a caregiver, the Office Action adds the Cheney reference in attempt to overcome the deficiency. The Office Action asserts that the Cheney reference teaches a thermal cell actuator that functions in response to a normal force as set forth in the abstract. The Office action further asserts that it would have been obvious to modify M<sup>c</sup>Coy's cold pack 18 (called a thermal cell actuator in the Office Action) to provide one that performs the function in response to the application of a normal force to compress a portion of the garment body by a caregiver because this allows the article to be used prior to utilizing the cold therapy technique which would extend the life of the article.



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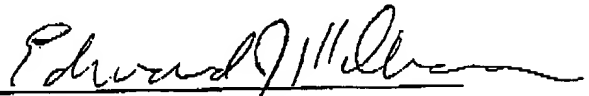
The Applicants respectfully traverse the rejection of Claim 5 and submit that the Office Action fails to establish a *prima facie* case of obviousness because the proposed modification of the M<sup>c</sup>Coy reference by the Cheney reference would still fail to disclose all of the claimed elements. Specifically, as noted above with respect to the rejection of Claim 1 over the M<sup>c</sup>Coy reference, the M<sup>c</sup>Coy reference fails to disclose an impermeable backsheet because it is directed to an undergarment. The addition of the Cheney reference fails to overcome this deficiency because the Cheney reference is directed to gel compresses for applying heat or cold to a body part (abstract). Therefore, the combination still fails to teach or disclose one of the claimed elements, a liquid impervious backsheet. Since the Applicants have shown that the combination of the M<sup>c</sup>Coy reference and the Cheney reference fails to make the invention describe in Claim 5 obvious, the Applicants respectfully request that the rejection under 35 USC § 103(a) be withdrawn and that the claim be allowed.

#### SUMMARY

The location in the Specification of a reference number from the Drawings has been pointed out. The Claims have been amended to more clearly define the inventions described thereby. The Applicant respectfully requests reconsideration of the rejections, their withdrawal, and that all of the claims be allowed. No new matter has been added by the amendment. Issuance of a Notice of Allowance at an early date is earnestly solicited.

Respectfully submitted,

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